

## CLAIMS

1. Monitoring system for monitoring the progress of neurological diseases, especially for monitoring patients with disturbed motor function, characterized by

- at least one observation station (3) with an electronic camera (9) for recording video motion pictures and devices (10) for marking an object field to be covered by the camera (9),

- a storage device for the digital storage of video pictures of a patient, which are to be recorded at preselected intervals by the camera (9) in the movement station (3),

- an image processing system for processing the video pictures recorded in time intervals to obtain a shortened video picture sequence, and

- a video display device (7) for displaying the video picture sequence.

2. System in accordance with Claim 1, characterized by several observation stations (3) and a central evaluation center, which is spatially separated from the observation stations, contains the video display device (7), and can be connected with the observation stations for the purpose of data transmission.

3. System in accordance with Claim 2, characterized by the fact that the central evaluation center consists of a computer, preferably a personal computer (4).

4. System in accordance with any of Claims 1 to 3, characterized by the fact that the observation station contains a computer unit (11) connected to the electronic camera.

5. System in accordance with Claim 4, characterized by the fact that the computer unit (11) is provided for data communication with the central evaluation center (1) and contains the storage device and the processing system.

6. System in accordance with any of Claims 1 to 5, characterized by the fact that the system is intended for the monitoring of a large number of patients, who visit the at least one observation station (3) at different times, wherein the observation station (3) has devices (14) for automatic patient identification, and the storage device and image processing system are designed for patient-specific image storage and processing in coordination with identification data.

7. System in accordance with any of Claims 1 to 6, characterized by the fact that the electronic camera (9) can be controlled by input into the patient identification device (14).

8. System in accordance with any of Claims 1 to 7, characterized by a programmable signaling device, which is carried by the patient and produces signals that remind the patient to take his medication and/or to go to the observation station.

9. System in accordance with Claim 8, characterized by the fact that devices (15, 20) are provided for automatic programming of the signaling device on the basis of input data.

10. System in accordance with any of Claims 1 to 9, characterized by the fact that devices are provided for automatic coordination of observation times.

11. System in accordance with any of Claims 1 to 10, characterized by the fact that the image processing system is designed to go beyond sequencing to process the recorded images themselves.